**Supplementary table I: Selected MeSH and GO terms related to gut functions.**

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| **Gut functions** | **Related GO terms** | **Related MESH terms** |
| 1) Transport / transit ingested material | * + GO:0120054 intestinal motility
	+ GO:0035482 gastric motility
	+ GO:0043133 hindgut contraction
	+ GO:0030432 peristalsis
	+ GO:0014831 gastro-intestinal system smooth muscle contraction
	+ GO:0030421 defecation
 | * + Constipation D003248
	+ Vomiting D014839
	+ Bile Reflux D001655
	+ Laryngopharyngeal Reflux D057045
	+ Flatulence D005414
	+ Abdominal Pain D015746
	+ Diarrhea D003967
	+ Nausea D009325
	+ Eructation D004884
	+ Gagging D005683
	+ Heartburn D006356
 |
| 2) Extracellular digestion ingested material  | * + GO:0007586 digestion
	+ GO:0050892 intestinal absorption
	+ GO:0006113 fermentation (NB. Related to microbe-derived products such as lactate)
 | * + Dyspepsia D004415
	+ Malabsorption Syndromes D008286
	+ Malnutrition D044342
 |
| 3) Intracellular digestion and metabolism  | * + GO:0005764 lysosome (too broad)
	+ GO:0044237 cellular metabolic process (too broad)
 | * + Dyspepsia D004415
	+ Malabsorption Syndromes D008286
	+ Malnutrition D044342
 |
| 4) Excretion Into gut lumen  | NO GO terms identified | NO CTD terms identified |
| 5) Supply essential nutrients | * + GO:0030277 maintenance of gastrointestinal epithelium
	+ GO:0005911 cell-cell junction
	+ GO:0050892 intestinal absorption
 | * + Diarrhea D003967
	+ Malnutrition D044342
	+ Water-Electrolyte Imbalance D014883
 |
| 6) Protection from injurious or allergenic material | * + GO:0030277 maintenance of gastrointestinal epithelium
	+ GO:0005911 cell-cell junction
	+ GO:0070254 mucus secretion
	+ GO:0046541 saliva secretion
 | * + Hypersensitivity, Immediate D006969
	+ Bacterial Infections and mycosis D001423
	+ Virus diseases D014777
	+ Parasitic diseases D010272
	+ Gastroenteritis D005759
	+ Diarrhea D003967
	+ Vomiting D014839
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